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10/574,473

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EXAMINER

TALPALATSKIY, ALEXANDER

ART UNIT

PAPER NUMBER

2832

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |   |                                      |  |
|------------------------------|---|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/574,473      | <b>Applicant(s)</b><br>OHKUBO ET AL. |  |
|                              | <b>Examiner</b><br>ALEXANDER TALPALATSKIY | <b>Art Unit</b><br>2832              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-12 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 01/06/2009 have been fully considered but they are not persuasive. With regards to the argument that there is no teaching of iron being used in the armature, it is inherently known to one of ordinary skill in the art that the armatures in these types of devices are made of iron or iron based materials, and thus armature material is not explicitly mentioned. The movable contactor support (24) of Passow is clearly part of the support structure of the contacts since the support mechanically moves together with the contacts; without the support, the contacts would not have desired mechanical support structure to enable operation of the device.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 6, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Passow (US 6025766).

4. In re claim 1, Passow, in figures 1-14, discloses a relay comprising a calculating unit (228, and in description of figure 14 in a paragraph in column 10) for outputting a trip signal or a reset signal to instruct supply and non-supply of power based on current information on a main circuit current supplied to a load; a power source unit (220) for

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supplying power to a coil based on the trip signal or the reset signal when the trip signal or the reset signal is input; an electromagnet unit (228 includes a unit for performing trip operation, see description of figure 14 in a paragraph in column 10) for performing a trip operation to move a movable iron core (18) from a position of a stationary state to a position of a trip state and a reset operation to move the movable iron core from the position of the trip state to the position of the stationary state, the movable iron core including the coil (80) and forming a magnetic circuit, when the power is supplied from the power source to the coil based on the trip signal or the reset signal; and a contact point mechanism unit (240) for opening a usually-closed contact point through the trip operation of the movable iron core and closing the usually-closed contact point through the automatic or manual reset operation, wherein the contact point mechanism unit includes: a movable contactor support (24) for supporting a movable contactor composing a part of the usually-closed contact point while being maintained in the movable iron core; and a reset bar (88) arranged in a manner that is switchable between an automatic reset setting and a manual reset setting, wherein in the automatic reset setting (figure 1) the reset bar does not engage with the movable contactor support in an operation range of the movable contactor support, and wherein in the manual reset setting (figure 5) the reset bar engages with the movable contactor support in interlock with the movable iron core to interrupt the reset operation of the movable iron core of the electromagnet unit, and when the reset operation is manually performed the reset bar engages with the movable contactor support to be moved up to a position at which the reset operation is completed.

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5. In re claim 5, Passow, in figures 1-13, discloses that the movable contactor support includes an indication protrusion (at the upper end of the support) to indicate one of the stationary state and the trip state, and the indication protrusion provided in the movable contactor support has a step (82) formed to be movable in a tripping direction to perform a test trip for confirming an operation.

6. In re claim 6, Passow, in figures 1-13, and more specifically in the difference between figures 2 and 4, discloses that a rotation position of the movable contactor support is defined as a position at which a clearance between a contact point of the movable contactor of the usually-closed contact point and a contact point of a fixed contactor in the trip state becomes approximately equal to a clearance between a contact point of the movable contactor of the usually-opened contact point and a contact point of the fixed contactor in the stationary state.

7. In re claim 10, Passow, in figures 1-13, discloses a permanent magnet (66) installed on a lower portion of a fixed iron core.

8. In re claim 11, Passow, in figures 1-13, discloses a spring (48/58) having one end fixed to the movable contactor support and the other end fixed to the movable contactor to exert a force on a contact point of a fixed contactor.

9. In re claim 12, Passow, in figures 1-13, discloses that the movable contactors are positioned on the movable contactor support and form electrical connection with the fixed contactors when the contact point mechanism unit is closed.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Passow in view of Ishii et al. (US 5283553).

12. In re claims 7-9, Passow discloses a general configuration of the device but does not show specific control components. Ishii et al., however, in figures 1-5, discloses a controller comprising a current transformer (CT), a rectifying unit (6), and an operation current adjusting unit (20) comprising a variable resistor (VR1). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adapted the control circuit taught by Ishii et al. to the apparatus of Passow in order to provide an improved control of the apparatus.

***Allowable Subject Matter***

13. Claims 2 - 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. A list of pertinent prior art is attached in form PTO-892.

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15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER TALPALATSKIY whose telephone number is (571)270-3908. The examiner can normally be reached on Monday - Friday, 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elvin G Enad/  
Supervisory Patent Examiner, Art Unit 2832

Alexander Talpalatskiy  
Examiner  
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